

## MS Excel Functions:

=**TODAY()** //outputs current date  
=**SUM(range)** //i.e: (cell1:cell2), calculates sum  
=**MAX(range)** //calculates highest value  
=**MIN(range)** //calculates lowest value  
=**COUNT(range)** //counts cells containing only numerical data  
=**COUNTA(range)** //counts all non-empty cells in range  
=**COUNTBLANK(range)** //counts empty cells in range  
=**AVERAGE(range)** //calculates average  
=**MEDIAN(range)** //calculates the range's middle value  
=**ROUND(cell, num\_digits)** //num\_digits: no. of digits to display after decimal point;  
(can also be performed on a value instead of a cell: =ROUND("number",num\_digits) )  
**related functions: roundup, rounddown**  
=**IF(logical\_test, "value\_if\_true", "value\_if\_false")**  
// checks for condition, if true performs the 1st, if false the 2nd.  
*Nested IFs: "value\_if\_true", "value\_if\_false" can be another IF (or other) function.*

## Other functions that use "IF" conditions:

=**SUMIF(range, criteria, sum\_range)** // "range": for checking condition, "sum\_range": for calculating sum note that: "range" & "sum\_range" can be the same. If not the same, they should be same size.  
=**SUMIFS(sum\_range, range1, criterial, range2, criteria2...)**  
=**COUNTIF(range, criteria)** //note that: COUNTIF doesn't ignore non-numerical data  
=**COUNTIFS(range1, criterial, range2, criteria2...)** //for multiple conditions  
=**AVERAGEIF(range, criteria, average\_range)**  
=**AVERAGEIFS(average\_range, range1, criterial, range2, criteria2...)**  
//for multiple conditions

## Extra Notes:

To keep a cell constant after copying (to prevent relative addressing on that cell):  
**\$cell\_letter\$cell\_number** e.g: **\$A\$1** //(1st \$ for column, 2nd \$ for row)

"" are used when the value is *NOT*, or doesn't include, a cell name.  
(e.g.: =SUMIF(A1:A6,">2",A1:A6) )

## **Tips:**

- Never use actual numbers if those numbers are in cells -use the cell's name instead.

This even applies to words.

(e.g.: Tax: 10%; where "10%" is written in cell A5 should be written as:

Final Price: ~ + **\$A\$5\***~ (*Not:* ~ + **10%\***~ )

- Be careful not to forget **\$\$** on constant cells.

- *Happy CSI200'ing :)*  
*AUST Student*